

## **Nevada Division of Environmental Protection**

Fact Sheet (pursuant to NAC 445A.236)

**Permittee:** Spring Creek Utilities Co  
285 Spring Creek Pkwy  
Spring Creek NV 89815

**Permit No.:** NEV2002511

**Facility:** Wastewater Treatment Plant #1  
(formerly Parcels A & B)  
Between 239 and 255 Spring Creek Pkwy  
(approx 1/2 mile west of Spring Creek Golf Course)  
Spring Creek, Elko County  
Latitude 40° 45' 02" N  
Longitude 115° 35' 59" W  
T33N R57E S18

**General:** A 25,000 gal septic tank and leachfield were installed on this site in 1988 to serve single and multi- family residential and commercial development in the area. In 2002, following several years of at or near capacity flow and pending development of the remaining vacant lots and parcels, the septic tank was replaced with a 50,000 gpd Marwood package plant, and disposal capacity doubled by the addition of a second leachfield. The septic tank has been left in place for emergency storage. The original leachfield is a traditional perforated pipe and drain rock arrangement with 7 ft sidewall trenches, while the new one uses Infiltrator chambers. A dosing tank with alternating siphons batches the discharge separately to each field in turn, and a manual bypass allows isolation for maintenance purposes. Drainage function is monitored via piezometers. The distribution boxes are inspected periodically and cleaned of solids as needed.

The collection system is gravity flow with the exception of a single lift station at the plant entrance.

The Marwood plant uses an extended aeration activated sludge process optimized to achieve denitrification. Settled effluent is discharged from the clarifier to the dosing tank, and wasted sludge is further processed in a 6500 gal aerobic digester, with approximately 3000 gal per week hauled for landfill disposal. Preliminary is provided by a bar screen.

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There are a total of three groundwater monitoring wells at this site. The first well was located with respect to the first leachfield. After the second leachfield was constructed a new well was needed that would be downgradient of both. Due to site constraints, the second well was placed at the southeast corner of the new leachfield. When it became apparent this location wasn't appropriate for the second field, an easement was obtained and the third well installed at a downgradient location 190 ft from the property line. The first two wells are no longer used, and the third well is now referred to simply as "Monitor Well". The screened interval extends from 25 to 90 ft bgs.

**Receiving Water Characteristics** This facility is located within 6000 ft of two public water supply wells - Spring Creek Utilities' wells 4 and 10. Data from the monitoring well is summarized in the table below.

Spring Creek Utilities

Wastewater Treatment Plant #1

Average of Quarterly Monitor Well Samples June 2005 through March 2007	
Parameter mg/l except as noted	Monitor Well
depth to water, ft	33
chloride	16.3
TDS	273
TKN	0.7
NO3 - N	0.45
TN	1.2

**Basis for Permit Requirements:** The monitoring requirements, discharge limits, and a summary of the monthly monitoring conducted under the previous permit from October 2003 through March 2007 are presented in the two tables below and form the basis for the discussion that follows.

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### Discharge Limitations

Parameter mg/l except as noted	Discharge Limitations	Monitoring Requirements	
		Measurement Frequency	Sample Type
Flow, monthly avg gpd	50,000	continuous	estimate
BOD	30	monthly	discrete
TSS	30	monthly	discrete
TN	10	monthly	discrete
TKN	m & r	monthly	discrete
NO <sub>2</sub> + NO <sub>3</sub> , as N	m & r	monthly	discrete
pH, su	6.5 - 9	quarterly	discrete

### Discharge Monitoring Results

October 2003 through March 2007

Parameter mg/l except as noted	Monitoring Results		
	min	avg	max
flow, monthly avg gpd	19,700	25,043	33,800
BOD	2	13	200
TSS	3.2	15.6	180.0
TKN	0.8	2.2	19.0
NO <sub>3</sub> - N	0.09	4.19	26.0
TN	1.0	6.1	28.0
pH, su	7.27	7.81	8.12

**SAMPLING LOCATION and FREQUENCY:** The sampling frequency remains at monthly as a minimum for obtaining meaningful data for a mechanical plant. The requirement to report influent BOD and TSS data has been removed as those considerations are of secondary importance with respect the purposes of a discharge permit.

**FLOW:** 50,000 gpd as a monthly average is the design capacity of the plant, so the 49,999 gpd daily maximum limit of the previous permit was an error in that regard. As permit limits should be technically based, and flows are not reported with 1 gpd precision, the correct number has been used in this iteration.

**BOD and TSS:** The secondary standards are 30 mg/l for the monthly average, and 45 mg/l for the daily maximum, which were the limits of

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the previous permit. Since a monthly sampling frequency precludes determining either of those, use of the lower number is a conservative application of the criteria. As can be seen in the table, the discharge data resides mostly well below that level.

**NITROGEN SPECIES:** The 10 mg/l limit for total nitrogen is a conservative application of the drinking water standard for nitrate. As total nitrogen is determined from the sum of separate analyses for total Kjeldahl nitrogen (organic plus ammonia), nitrite, and nitrate, those species are to be reported as well.

**pH:** The limit is taken from the Class A waterbody standards, which is a correction to the 6 - 9 su limit of the previous permit.

**Compliance Issues** There have been no significant compliance issues regarding the operation of this facility.

**Schedule of Compliance** There are no specific schedule of compliance items at this time.

**Procedures for Public Comment** The Notice of the Division's intent to renew water pollution control discharge permit NEV2002511 for Spring Creek Utilities WTP #1 is being sent to the Elko Daily Free Press for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication. The comment period can be extended at the discretion of the Administrator. The deadline by which all written comments are to be postmarked or hand delivered to the Division is 5:00 pm Tuesday November 20, 2007.

A public hearing on the proposed determination can be requested by the applicant, any affected state or interstate agency, the Regional Administrator, or any interested agency, person, or group of persons. The request must be filed within the comment period and indicate the interest of the person filing the request and the reasons why a hearing is warranted. All public hearings must be conducted in accordance with NAC 445A.238. The final determination of the Administrator may be

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appealed to the State Environmental Commission pursuant to NRS 445A.605.

**Proposed Determination:** The Division has made the tentative determination to renew the proposed discharge permit for a five year term.

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